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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,310	09/27/2006	Marzio Alessi	09952.0075	3800

22852 7590 10/16/2009

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EXAMINER	
EDWARDS, LINGLAN E	

ART UNIT	PAPER NUMBER
2449	

MAIL DATE	DELIVERY MODE
10/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/594,310	ALESSI ET AL.	
	Examiner	Art Unit	
	Linglan Edwards	2449	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-34* is/are pending in the application.

4a) Of the above claim(s) *29-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-28 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/27/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in respond to application filed on September, 2006 in which claims 18-34 are pending for examination.

Status of Claims

2. Claims 18-34 are pending; Group I consisting of claims 18-28 and 34 were elected, of which claims 18-28 and 34 are rejected.

3. This application contains claims 29-33 drawn to an invention nonelected. A complete reply to the office action must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Examiner's Note

4. Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show necessary textual labels of features or symbols in Figures 1-9. For example, placing a label, "Control System", with element E of Figure, would give the viewer necessary detail to fully understand this element at a glance. A **descriptive** textual label for **each numbered** (numerically or alphabetically) element in these figures would be needed to fully and better understand these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be shown in the drawing. Optionally, applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.83. 37 CFR 1.84(n)(o) is recited below:

"(n) **Symbols**. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognize4d conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) **Legends**. Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible."

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because it contains claim language (e.g. "said" in line 8 and 9). Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claim 18-28**, and **34** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 18 recites calculating "semantics affinity" as the "distance of each of said additional contents to said at least a reference content", however, the specification does not provide sufficient disclosure on how the distance is calculated.

Claim 19 recites using of "data mining/artificial intelligence mechanisms", **claim 20** recites use of "neural networks, fuzzy logic and decision tree", the specification does not provide sufficient disclosure as how they are used.

Claim 21 recite the limitation "step of identifying for each category at least a reference content comprises the step of using search engines", the specification does not provide sufficient disclosure as how the reference content is identified by using search engines.

Claim 22 recites the limitation "identifying a set of reference contents by using search engines", the specification does not provide sufficient disclosure as how the reference content is identified by using search engines.

Claim 28 recites a "class/policy template repository"; however, the specification does not disclose what a "policy template" is. For the following rejection, the examiner interprets this as a "class template/policy repository".

The dependent claims included in the statement of rejection but not specifically addressed in the body of the rejection have inherited the deficiencies of their parent claim and have not resolved the deficiencies. Therefore, they are rejected based on the same rationale as applied to their parent claims above.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 18-28** and **34** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "additional" in line 4. There is insufficient antecedent basis for this limitation in the claim. It is not clear what the "additional" is based on.

Claim 19 recites "data mining/artificial intelligence", **claims 28** recite "class/policy template", **claim 31** recites "distributed content/additional content", it is not clear to the examiner how the "/" is to be interpreted as it implies more than one way to interpret ("and", or "or"), which render the claim indefinite.

Claims 27-28 each recites a "class template", as the term was not defined in the specification, it is not clear to the examiner as how this should be interpreted.

The dependent claims included in the statement of rejection but not specifically addressed in the body of the rejection have inherited the deficiencies of their parent claim and have not resolved the deficiencies. Therefore, they are rejected based on the same rationale as applied to their parent claims above.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. **Claim 34** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 34 recites a computer-program product. However, it appears that one of ordinary skill in the art could interpret the product as **software, per se.** As defined in the specification, it is clear that each of the steps is a software instruction to be executed, thus constitutes functional descriptive material. When recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. While the claim recite the program product is "loadable in the memory of at least

one computer", it is not positively recited to be recorded in the memory.

Therefore, claim 34 is non-statutory.

Claim Rejections - 35 USC § 103

14. **Claims 18**, and **34** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US PG-PUB No. 2002/0010798 A1** to **Ben-Shaul et al.** (hereinafter **Ben-Shaul**) in view of **US PG-PUB No. 2003/0028564 A1** to **Antonio Sanfilippo** (hereinafter **Sanfilippo**).

As per **claim 18**, **Ben-Shaul** disclosed a method for controlling distribution of media contents over a network, wherein said contents are distributed by making said contents available at surrogate servers (**Ben-Shaul**: paragraph [0003], "edge servers" correspond to surrogate servers), comprising the steps of:

identifying additional contents eligible for distribution (**Ben-Shaul**: paragraph [0072], web content to be provided);

defining a set of categories (**Ben-Shaul**: paragraph [0062], the content are classified appropriate predefined directories);

associating said additional contents with said predefined categories based on semantics affinity (**Ben-Shaul**: paragraph [0063], the example of when user request for a cook book, the server return a list of cook books, and information regarding local food and cookware stores, indicates that contents are associated with predefined categories based on semantics affinity; and paragraph [0072], second version of the content derived from the origin web server);

with said reference content, said semantics affinity being calculated as the distance of each of said additional contents to said at least a reference content;

selecting at least one of said predefined categories (**Ben-Shaul**: paragraph [0072], second version of the content); and

making at least one of the additional contents associated with said selected predefined category available for distribution at said surrogate servers (**Ben-Shaul**: paragraph [0072], second version of the web content stored and made available at the edge server (i.e. surrogate server)).

Although **Ben-Shaul** does not explicitly disclose using a reference content to categorize addition content based on semantics distance, disclosed a method and system where additional content are categorized based on semantics affinity with reference content, where the semantics affinity is calculated as the distance between the additional content and the reference content (**Sanfilippo**: page 10, claim 27 text); **Ben-Shaul** and **Sanfilippo** are analogous art because they are from the same field of endeavor for electronic content providing; at the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of **Ben-Shaul** and **Sanfilippo** before him or her, to modify the system of **Ben-Shaul** to incorporate the categorizing additional content based on semantic distance from **Sanfilippo**, the motivation being for increased system efficiency.

As per **claim 34**, **Ben-Shaul-Sanfilippo** disclosed a computer program product (**Ben-Shaul**: paragraph [0039], [0121]; **Sanfilippo**: paragraph [0054]) loadable in the memory of at least one computer and comprising software code portions capable of performing the steps of claim 18 (see rejection of claim 18 above).

15. **Claims 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** as applied to claim 18 above, and further in view of **US Pat. No. 6,829,613 B1** to **Elizabeth D. Liddy** (hereinafter **Liddy**).

As per **claim 19**, **Ben-Shaul-Sanfilippo** disclosed the method according to claim 18; although **Ben-Shaul-Sanfilippo** does not explicitly disclose the step of calculating semantics affinity comprising step of involving the use of data mining/artificial intelligence mechanisms, in an analogous art in electronic content providing, **Liddy** disclosed a method and system that calculating semantics affinity involves the use of artificial intelligence mechanisms (**Liddy**: col. 13, line 61 - col. 14, line 7, "decision tree" is an artificial intelligence mechanism)

As per **claim 20**, **Ben-Shaul-Sanfilippo-Liddy** disclosed the method according to claim 19, wherein said mechanisms comprise at least a mechanism selected from neural networks, fuzzy logic and decision trees (**Liddy**: col. 13, line 61 - col. 14, line 7, decision tree).

16. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** as applied to claim 18 above, and further in view of **US PG-PUB No. 2002/0062300 A1** to **Asadov et al.** (hereinafter **Asadov**).

As per **claim 21**, **Ben-Shaul-Sanfilippo** disclosed the method according to claim 18; although **Ben-Shaul-Sanfilippo** does not explicitly disclose using of searching engines in the step of identifying a reference content, in an analogous art in electronic content providing, **Asadov** disclosed a method and system where search engines are used for identifying document by content (**Asadov**: paragraph [0020], [0050], search agents are used for identifying document by semantics); at the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of **Ben-Shaul**, **Sanfilippo**, and **Asadov** before him or her, to modify the system of **Ben-Shaul-Sanfilippo** to further incorporate the search agents (search engines) from **Asadov**, the motivation being for improved system efficiency.

17. **Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** and **Asadov**, and further in view of **US PG-PUB No. 2002/0188681 A1** to **Gruen et al.** (hereinafter **Gruen**).

As per **claim 22**, **Ben-Shaul-Sanfilippo** disclosed the method according to claim 18, wherein said step of identifying for each category at least a reference content comprises the steps of:

identifying a set of reference contents by using search engines (**Asadov**: paragraph [0020], [0050], search agents are used for identifying document by semantics; see motivation in the rejection of claim 21 above);

Although **Ben-Shaul-Sanfilippo-Asadov** does not explicitly disclose calculating a central reference content, in a analogous art in providing electronic content, **Gruen** disclosed a method and system where a centroid document (i.e. central reference content) is calculated for a set of documents (**Gruen**: paragraph [0039], computing a centroid document for a cluster of documents); at the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of **Ben-Shaul**, **Sanfilippo**, **Asadov**, and **Gruen** before him or her, to modify the system of **Ben-Shaul-Sanfilippo-Asadov** to further incorporate the calculating central reference content from **Gruen**, the motivation being for increased system efficiency and accuracy for categorizing documents.

18. **Claim 23-24** and **26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** as applied to claim 18 above, and further in view of **US PG-PUB No. 2002/0087659 A1** to **Chapman et al.** (hereinafter **Chapman**).

As per claim 23, **Ben-Shaul-Sanfilippo** disclosed the method according to claim 18, wherein said step of. associating said additional contents to said predefined

categories based on semantics affinity with said reference content, comprises the steps of:

identifying contents requested (**Ben-Shaul**: paragraph [0062], user request a cook book); and

associating each of said distributed content with said predefined categories based on semantics affinity with said reference content, said semantics affinity being calculated as the distance of each of said distributed contents to said at least a reference content (**Ben-Shaul**: paragraph [0062], the local edge add to the content regarding local food and cookware stores which is semantically related to the user request);

Although **Ben-Shaul-Sanfilippo** does not explicitly disclose the association being made with content already distributed, in an analogous art in providing electronic content, **Chapman** disclosed a method where contents that have already been distributed are used for associating additional contents for distribution (**Chapman**: paragraph [0004], the choice of what gets cached is based on a guess at future requests or observations of previous transactions); at the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of **Ben-Shaul**, **Sanfilippo**, and **Chapman**, to modify the system of **Ben-Shaul-Sanfilippo** to incorporate the concept of prediction future request based on previous transactions, the motivation being to improve system efficiency by caching contents that are more likely to be requested in the future.

As per **claim 24**, **Ben-Shaul-Sanfilippo-Chapman** disclosed the method according to claim 23; although **Ben-Shaul-Sanfilippo-Chapman** does not explicitly disclose using two separate databases for storing classification information, **Ben-Shaul** disclosed using two separate databases for storing content provided (**Ben-Shaul**: paragraph [0072], origin web server storage and edge server storage); it would have been obvious to one of ordinary skill in the art, to also apply the separated databases concept for storing classification information, the motivation being for increased data access efficiency.

As per **claim 26**, **Ben-Shaul-Sanfilippo-Chapman** disclosed the method according to claim 24, wherein said step of making at least one of the additional contents associated with said selected predefined category available for distribution at said surrogate servers comprises the step of:

extracting from said second database contents information related to said at least one additional content (**Ben-Shaul**: paragraph [0063], extract information regarding local food and cookware stores when a cook book is requested).

As per **claim 27**, **Ben-Shaul-Sanfilippo-Chapman** disclosed the method according to claim 24 comprising the steps of:

identifying additional information comprising at least usage information provided by said surrogate servers (**Ben-Shaul**: paragraph [0054], statistics collection and reporting; and **Day**: col. 2, line 48-52, a different transmission

mode is selected based on the frequency of requests by receivers, i.e., usage information is collected);

matching said additional information with said category information provided by said first database (**Ben-Shaul**: paragraph [0063], finding related information, i.e., matching content requested with category information; same matching method can be used for content frequently requested as well);

generating at least one class template comprising said matched information (**Ben-Shaul**: paragraph [0070], distribution policies change dynamically based on characteristic of differentiated content; the discloses identifies "class template" as "content distribution events/actions based on triggered policies for distributing the contents or for modifying the distribution policies);

adding to said class template said contents information provided by said second database (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage); and

forwarding said at least one modified class template to a distribution system (**Ben-Shaul**: paragraph [0069], the edge servers get updates on their policies from the origin site, i.e., the new policies are forwarded to the edge servers from the origin site).

As per **claim 28**, **Ben-Shaul-Sanfilippo-Chapman** disclosed the method according to claim 27 wherein said step of adding to said class template said contents information provided by said second database comprises the steps of:

accessing a class/policy template repository (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage, the policy repository has to be accessed for the change to be recorded); and

modifying said class template according to said content information (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage).

19. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** and **Chapman** as applied to claims 23-24 above, and further in view of **US Pat. No. 7,222,185 B1** to **Mark Stuart Day** (hereinafter **Day**).

As per **claim 25**, **Ben-Shaul-Sanfilippo-Chapman** disclosed the method according to claim 24; although **Ben-Shaul-Sanfilippo-Chapman** does not explicitly disclose the using of interest threshold for representing at least of a frequency of user request for a given content, in an analogous art in electronic content providing, **Day** disclosed a method and system where an interest threshold representative at least of a frequency of user requests for a given content is used (**Day**: col. 2, line 48-52, a different transmission mode is selected based on the frequency of requests by receivers); at the time of the invention, it

would have been obvious to one of ordinary skill in the art, having the teachings of **Ben-Shaul**, **Sanfilippo**, **Chapman**, and **Day** before him or her, to modify the system of **Ben-Shaul-Sanfilippo-Chapman** to further incorporate the determining of user interest threshold from **Day**, to enable the system to define an interest threshold representative at least of a frequency of user requests for a given content, and extract and provide content of same category when said interest threshold is exceeded, the motivation being to increase the system efficiency by increase the availability of content more frequently requested by users.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linglan Edwards whose telephone number is (571) 270-5440. The examiner can normally be reached on 6:00AM-3:30PM EST Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571) 272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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